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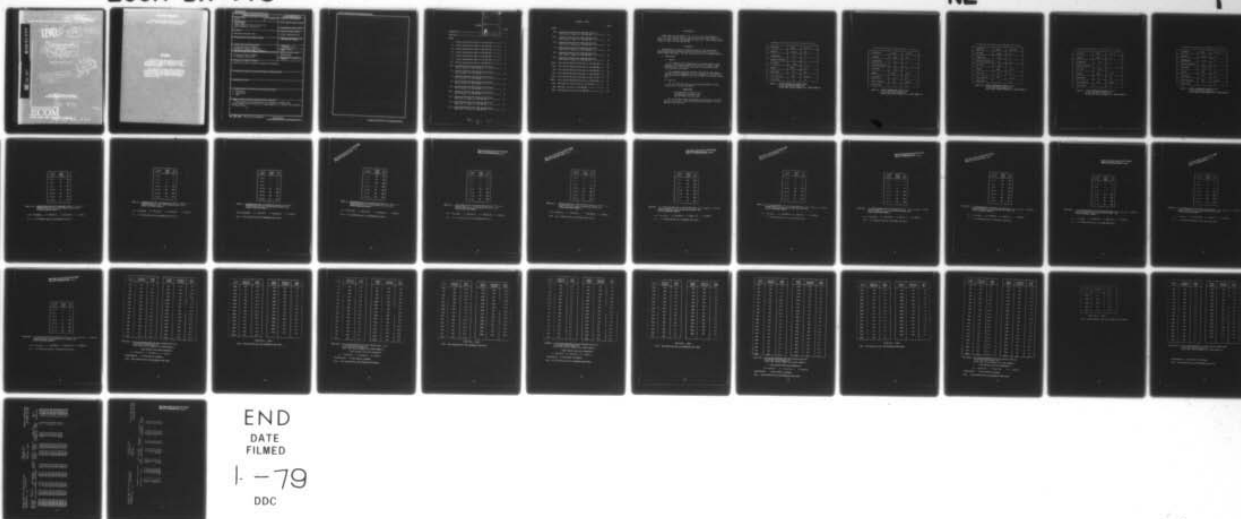
ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
19302A GSRS. MISSILE NOS. V-10, V-11 AND V-12 ROUND NOS. 11, 12--ETC(U)
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METEOROLOGICAL DATA REPORT

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19302A GPRS.
Missile Nos. V-10, V-11 and V-12
Round Nos. 11, 12 and 10
(28 August 1978)

By

WSMR Meteorological Team

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 19302A GSRS, Missile Number V-10, V-11 and V-12, Round Number 11, 12 and 10, are presented in tabular form.		

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INTRODUCTION

19302A GSRS, Missile Numbers V-10, V-11 and V-12, Round Numbers 11, 12 and 10, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1209, 1216 and 1228 HRS MDT, 28 August 1978. The scheduled launch times were 1145, 1155 and 1205 HRS MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction, wind velocity and cloud cover were made at the LC-33 Met Site at T-0 mins.

(2) Anemometer data were provided from existing pole mounted and tower mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS-T-9 pibals observation at T-0 mins as follows:

SITE & ALT.

LC-33 900 meters (15 meter incs)

APA 900 meters (30 meter incs)

SMR 900 meters (30 meter incs)

(2) Air structure data (rawinsonde) were collected at the SMR Met Site at T-0 mins. Data were collected from surface to 125 % of apogee in 100 meter incs.

The data are presented in the following tabulations:

ELEVATION	3,990	FEET/MSL
PRESSURE	878.9	MBS
TEMPERATURE	31.2	°C
RELATIVE HUMIDITY	13	%
DEW POINT	-0.6	°C
DENSITY	1,001	GM/M ³
WIND SPEED	05	MPH
WIND DIRECTION	030	DEGREES
CLOUD COVER	0	Cu

TABLE I. SURFACE OBSERVATIONS TAKEN AT WSD
AT 1145 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-11, ROUND NUMBER 12

The data are presented in the following tabulations:

ELEVATION	3,990	FEET/MSL
PRESSURE	878.9	MBS
TEMPERATURE	31.5	°C
RELATIVE HUMIDITY	13	%
DEW POINT	-0.4	°C
DENSITY	1,000	GM/M ³
WIND SPEED	06	MPH
WIND DIRECTION	030	DEGREES
CLOUD COVER	0	Cu

TABLE II. SURFACE OBSERVATIONS TAKEN AT WSD
AT 1155 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-11, ROUND NUMBER 12

The data are presented in the following tabulations:

ELEVATION	3,990	FEET/MSL
PRESSURE	878.4	MBS
TEMPERATURE	31.8	°C
RELATIVE HUMIDITY	13	%
DEW POINT	-0.1	°C
DENSITY	998	GM/M ³
WIND SPEED	06	MPH
WIND DIRECTION	030	DEGREES
CLOUD COVER	0	Cu

TABLE III. SURFACE OBSERVATIONS TAKEN AT WSD
AT 1205 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-12, ROUND NUMBER 10

The data are presented in the following tabulations:

ELEVATION	3,989	FEET/MSL
PRESSURE	881.9	MBS
TEMPERATURE	32.2	°C
RELATIVE HUMIDITY	27	%
DEW POINT	10.8	°C
DENSITY	999	GM/M ³
WIND SPEED	02	MPH
WIND DIRECTION	355	DEGREES
CLOUD COVER	1	Cu

TABLE IV. SURFACE OBSERVATIONS TAKEN AT LC-33
AT 1209 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-10, ROUND NUMBER 11

The data are presented in the following tabulations:

ELEVATION	3,989	FEET/MSL
PRESSURE	881.9	MBS
TEMPERATURE	32.2	°C
RELATIVE HUMIDITY	27	%
DEW POINT	10.8	°C
DENSITY	999	GM/M ³
WIND SPEED	02	MPH
WIND DIRECTION	360	DEGREES
CLOUD COVER	1	Cu

TABLE V. SURFACE OBSERVATIONS TAKEN AT LC-33
AT 1216 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-11, ROUND NUMBER 12

The data are presented in the following tabulations:

ELEVATION	3,990	FEET/MSL
PRESSURE	878.7	MBS
TEMPERATURE	33.3	°C
RELATIVE HUMIDITY	11	%
DEW POINT	-1.4	°C
DENSITY	995	GM/M ³
WIND SPEED	07	MPH
WIND DIRECTION	030	DEGREES
CLOUD COVER	0	Cu

TABLE VI. SURFACE OBSERVATIONS TAKEN AT WSD
AT 1227 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-12, ROUND NUMBER 10

The data are presented in the following tabulations:

ELEVATION	3,989	FEET/MSL
PRESSURE	881.9	MBS
TEMPERATURE	32.3	°C
RELATIVE HUMIDITY	26	%
DEW POINT	10.2	°C
DENSITY	998.9	GM/M ³
WIND SPEED	04	MPH
WIND DIRECTION	350	DEGREES
CLOUD COVER	2	Cb

TABLE VII. SURFACE OBSERVATIONS TAKEN AT LC-33
AT 1228 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-12, ROUND NUMBER 10

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	09	018
-20.0	11	047
-10.0	11	037
-00.00	11	036
+10.00	10	037
+20.00	08	039
+30.00	07	032

TABLE VIII. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1
RELEASED FROM LC-33 AT 1109 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 1

WSTM COORDINATES: X = 485,874.29 Y = 185,958.90 Z = 4,018.74

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	07	051
+10.00	08	050
+20.00	09	050
+30.00	08	053

TABLE IX. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION. POLE NO. 1
RELEASED FROM LC-33 AT 1116 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 2

WSTM COORDINATES: X = 485,874.29 Y = 185,958.90 Z = 4,018.74

NOTE. WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	04	360
+10.00	04	003
+20.00	06	342
+30.00	06	350

TABLE X. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1
RELEASED FROM LC-33 AT 1128 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 3

WSTM COORDINATES: X = 485,874.29 Y = 185,958.90 Z = 4,018.74

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	06	051
-20.0	08	045
-10.0	06	066
-00.00	10	066
+10.00	08	057
+20.00	08	062
+30.00	08	056

TABLE XI. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2
RELEASED FROM LC-33 AT 1109 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 1

WSTN COORDINATES: X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEC
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	05	077
+10.00	05	083
+20.00	08	058
+30.00	08	066

TABLE XII. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2
RELEASED FROM LC-33 AT 1116 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 2

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	03	357
+10.00	02	348
+20.00	03	346
+30.00	04	342

TABLE XIII. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2
RELEASED FROM LC-33 AT 1128 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 3

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEC
-30.0	06	360
-20.0	06	011
-10.0	04	021
-00.00	05	031
+10.00	04	008
+20.00	04	023
+30.00	03	046

TABLE XIV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 1 (12 FT)
RELEASED FROM LC-33 AT 1109 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 1

WSTM COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	05	020
+10.00	04	057
+20.00	02	073
+30.00	01	023

TABLE XV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 1 (12 FT)
RELEASED FROM LC-33 AT 1116 HRS MDT/28 AUGUST 1978
19302A GSRs/ROUND NUMBER 2

WSTM COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEC
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	05	002
+10.00	07	016
+20.00	09	011
+30.00	08	002

TABLE XVI. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 1 (12 FT)
RELEASED FROM LC-33 AT 1128 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 3

WSTM COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH

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T-TIME (SEC)	SPEED (MPH)	DIR DEC
-30.0	05	344
-20.0	06	349
-10.0	05	022
-00.00	04	016
+10.00	08	050
+20.00	08	053
+30.00	08	023

TABLE XVII. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 3 (102 FT)
RELEASED FROM LC-33 AT 1109 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 1

WSTM COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	08	065
+10.00	06	078
+20.00	05	086
+30.00	03	085

TABLE XVIII. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 3 (102 FT)
RELEASED FROM LC-33 AT 1116 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 2

WSTN COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	08	005
+10.00	10	005
+20.00	09	005
+30.00	09	002

TABLE XIX. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 3 (102 FT)
RELEASED FROM LC-33 AT 1128 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 3

WSTN COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEC
-30.0	06	350
-20.0	06	015
-10.0	05	011
-00.00	05	043
+10.00	06	048
+20.00	09	036
+30.00	10	047

TABLE XX. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 4 (202 FT)
RELEASED FROM LC-33 AT 1109 HRS MDT/28 AUGUST 1978
19302A GSRs/ROUND NUMBER 1

WSTM COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEC
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	04	057
+10.00	07	058
+20.00	05	067
+30.00	03	062

TABLE XXI. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 4 (202 FT)
RELEASED FROM LC-33 AT 1116 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 2

WSTM COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

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T-TIME (SEC)	SPEED (MPH)	DIR DEC
-30.0	--	---
-20.0	--	---
-10.0	--	---
-00.00	11	004
+10.00	11	011
+20.00	09	009
+30.00	08	009

TABLE XXII. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, TOWER LEVEL NO. 4 (202 FT)
RELEASED FROM LC-33 AT 1128 HRS MDT/28 AUGUST 1978
19302A GSRS/ROUND NUMBER 3

WSTM COORDINATES: X = 484,982.64 Y = 185,957.73 Z = 3,983.00

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	355	2.0	800	045	9.0
50	020	1.0	850	041	9.0
100	045	0.0	900	036	10.0
150	036	2.0	950	035	10.0
200	027	3.0	1000	034	9.0
250	028	5.0	1050	033	9.0
300	029	6.0	1100	032	9.0
350	028	7.0	1150	031	10.0
400	027	9.0	1200	030	11.0
450	026	10.0	1250	029	12.0
500	025	11.0	1300	028	12.0
550	057	9.0	1350	032	12.0
600	088	6.0	1400	035	11.0
650	073	7.0	1450	039	11.0
700	057	8.0	1500	043	10.0
750	051	9.0	1550	043	11.0

TABLE XXIII. PILOT-BALLOON-MEASURED WIND DATA RELEASED FROM LC-33
 AT 1109 HRS MDT/28 AUGUST 1978
 19302A GSRS, MISSILE NUMBER V-10, ROUND NUMBER 11

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,302.67 Y = 185,283.13 Z = 3,989.47

APPROXIMATELY: 1.0 MILE WEST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
1600	043	12.0
1650	043	12.0
1700	043	13.0
1750	041	12.0
1800	038	11.0
1850	035	11.0
1900	032	10.0
1950	036	10.0
2000	039	10.0
2050	045	10.0
2100	051	9.0
2150	047	9.0
2200	042	8.0
2250	036	8.0
2300	030	8.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2350	024	8.0
2400	018	7.0
2450	007	7.0
2500	356	7.0
2550	352	7.0
2600	347	6.0
2650	342	6.0
2700	336	6.0
2750	337	6.0
2800	338	6.0
2850	339	6.0
2900	340	5.0
2950	340	5.0
3000	340	5.0

TABLE XXIII. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	360	2.0	800	076	9.0
50	360	2.0	850	075	9.0
100	360	1.0	900	073	9.0
150	023	1.0	950	072	8.0
200	000	0.0	1000	070	8.0
250	049	2.0	1050	058	8.0
300	052	4.0	1100	046	7.0
350	053	6.0	1150	034	8.0
400	053	8.0	1200	022	8.0
450	051	8.0	1250	027	9.0
500	048	7.0	1300	032	9.0
550	045	7.0	1350	034	10.0
600	041	7.0	1400	036	10.0
650	052	8.0	1450	030	12.0
700	063	9.0	1500	023	14.0
750	070	9.0	1550	024	14.0

TABLE XXIV. PILOT-BALLOON-MEASURED WIND DATA RELEASED FROM LC-33
AT 1116 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-11, ROUND NUMBER 12

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,302.67 Y = 185,283.13 Z = 3,989.47

APPROXIMATELY: 1.0 MILE WEST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
1600	024	13.0	2350	016	11.0
1650	025	12.0	2400	022	11.0
1700	026	11.0	2450	017	11.0
1750	028	10.0	2500	012	10.0
1800	029	9.0	2550	005	11.0
1850	024	9.0	2600	358	11.0
1900	019	9.0	2650	357	11.0
1950	014	9.0	2700	356	11.0
2000	009	9.0	2750	355	12.0
2050	007	10.0	2800	354	12.0
2100	004	11.0	2850	356	12.0
2150	002	12.0	2900	357	12.0
2200	360	13.0	2950	358	12.0
2250	005	12.0	3000	359	12.0
2300	010	11.0			

TABLE XXIV. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	350	4.0	800	356	3.0
50	350	4.0	850	356	3.0
100	350	4.0	900	356	3.0
150	018	2.0	950	355	3.0
200	000	0.0	1000	354	3.0
250	059	1.0	1050	351	4.0
300	063	1.0	1100	348	4.0
350	062	1.0	1150	346	5.0
400	060	1.0	1200	344	5.0
450	057	2.0	1250	352	5.0
500	053	3.0	1300	360	5.0
550	053	4.0	1350	007	6.0
600	052	5.0	1400	014	6.0
650	042	4.0	1450	011	6.0
700	032	3.0	1500	008	6.0
750	014	3.0	1550	005	6.0

TABLEXXV. PILOT-BALLOON-MEASURED WIND DATA RELEASED FROM LC-33
AT 1128 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-12, ROUND NUMBER 10

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,302.67 Y = 185,283.13 Z = 3,989.47

APPROXIMATELY: 1.0 MILE WEST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
1600	002	6.0
1650	009	6.0
1700	016	6.0
1750	024	7.0
1800	032	7.0
1850	031	7.0
1900	029	7.0
1950	028	8.0
2000	027	8.0
2050	023	8.0
2100	018	8.0
2150	014	8.0
2200	010	7.0
2250	008	7.0
2300	006	7.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2350	005	7.0
2400	004	6.0
2450	007	6.0
2500	009	6.0
2550	012	5.0
2600	015	5.0
2650	018	5.0
2700	021	5.0
2750	025	5.0
2800	028	4.0
2850	018	4.0
2900	008	3.0
2950	355	3.0
3000	341	3.0

TABLE XXVI. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	045	7.0	2100	032	2.5
100	060	5.5	2200	338	2.0
200	075	3.5	2300	348	2.0
300	055	8.0	2400	357	2.0
400	034	12.0	2500	075	2.0
500	033	13.0	2600	153	2.0
600	031	14.0	2700	235	2.0
700	033	12.5	2800	317	2.0
800	035	10.5	2900	324	2.5
900	041	7.0	3000	330	2.5
1000	046	3.5	3100	319	4.5
1100	047	4.0	3200	308	6.5
1200	047	4.0	3300	302	7.5
1300	047	4.0	3400	296	8.0
1400	046	4.0	3500	294	8.0
1500	039	5.0	3600	292	7.5
1600	031	6.0	3700	283	8.5
1700	021	5.0	3800	274	9.5
1800	011	4.0	3900	268	9.0
1900	048	3.5	4000	262	8.0
2000	085	2.5	4100	262	9.5

TABLE XXVI. PILOT-BALLOON-MEASURED WIND DATA, RELEASED FROM SMR
AT 1208 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-10, ROUND NUMBER 11

PIBAL RELEASE POINT WSTM COORDINATES:

X = 472,441.28 Y = 214,137.54 Z = 3,999.00

APPROXIMATELY: 6 MILES NORTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	262	10.5	5700	252	5.0
4300	266	9.0	5800	253	3.0
4400	270	7.5	5900	251	4.0
4500	269	8.0	6000	248	5.0
4600	267	8.5	6100	243	5.0
4700	259	9.0	6200	237	4.5
4800	251	9.5	6300	235	5.0
4900	250	8.0	6400	233	5.0
5000	248	6.0	6500	246	4.5
5100	255	7.0	6600	258	4.0
5200	261	7.5	6700	245	4.5
5300	257	7.0	6800	231	4.5
5400	253	6.5	6900	244	4.0
5500	252	7.0	7000	256	3.0
5600	250	7.0			

TABLE XXVI. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	045	7.0	2100	031	10.0
100	036	4.0	2200	028	10.5
200	027	1.0	2300	037	10.5
300	055	8.0	2400	045	10.0
400	082	15.0	2500	037	10.0
500	078	12.0	2600	029	10.0
600	073	8.5	2700	034	9.5
700	056	10.0	2800	038	9.0
800	038	11.5	2900	032	7.5
900	050	13.0	3000	026	6.0
1000	061	14.5	3100	357	6.5
1100	057	14.0	3200	328	6.5
1200	053	13.5	3300	318	7.0
1300	055	12.5	3400	307	7.0
1400	056	11.5	3500	295	9.0
1500	053	12.0	3600	282	10.5
1600	050	12.0	3700	273	11.0
1700	041	13.0	3800	264	11.5
1800	031	13.5	3900	264	10.5
1900	032	11.5	4000	264	9.0
2000	033	9.0	4100	260	10.5

TABLE XXVII. PILOT-BALLOON-MEASURED WIND DATA, RELEASED FROM SMR
AT 1228 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-12, ROUND NUMBER 10

PIBAL RELEASE POINT WSTM COORDINATES:

X = 472,441.28 Y = 214,137.54 Z = 3,999.00

APPROXIMATELY: 6 MILES NORTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	256	11.5
4300	261	10.5
4400	266	9.0
4500	264	9.5
4600	262	10.0

TABLE XXVII. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	350	2.0	1600	099	2.0
100	030	1.5	1700	107	2.0
200	070	2.0	1800	124	1.0
300	089	3.0	1900	184	1.0
400	092	3.5	2000	232	1.5
500	085	3.0	2100	245	2.0
600	076	3.0	2200	250	3.0
700	064	2.5	2300	252	4.0
800	058	2.0	2400	255	4.5
900	052	2.0	2500	263	4.0
1000	042	1.5	2600	271	4.0
1100	038	1.0	2700	280	4.0
1200	063	1.5	2800	279	4.0
1300	078	2.0	2900	277	4.0
1400	087	2.0	3000	275	4.0
1500	093	2.0			

TABLE XXVIII. PILOT-BALLOON-MEASURED WIND DATA, RELEASED FROM APACHE
AT 1315 HRS MDT/28 AUGUST 1978
19302A GSRS, MISSILE NUMBER V-10, ROUND NUMBER 11

APPROXIMATELY: 15 MILES NORTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 3997.30 FEET MSL
28 AUG. 78
ASCENSION NO. 127

1155 HRS MDT

SIGNIFICANT LEVEL DATA
240000Z127
S M R
TABLE XXIX.

GEODETIC COORDINATES
32.48034 LAT DEG
196.42307 LON DEG

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
879.0 3997.3	31.0 3.9	18.0
850.0 4976.8	27.6 1.3	18.0
750.8 8524.0	18.5 -3.0	23.0
702.0 10477.5	13.4 -6.7	24.0
605.2 14420.3	2.1 -8.3	46.0
564.2 16269.7	-1.6 -19.5	24.0
500.0 19391.0	-8.5 -27.4	20.0
472.4 20828.0	-12.6 -31.4	19.0
458.6 21573.6	-11.8 -32.5	16.0
423.2 23577.8	-16.8 -34.9	19.0
400.0 24961.5	-20.3 -37.3	20.0
370.4 26815.9	-25.6 -41.0	22.0

STATION ALTITUDE 3997' 30 FEET MSL
 28 AUG. 78
 ASCENSION NO. 127

UPPER AIR DATA
 240000Z127
 S M R
 TABLE XXX.

GEODETIC COORDINATES
 32.48034 LAT DEG
 116.42307 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
							DIRECTION DEGREES (TN)	SPEED KNOTS	
3997.3	879.0	31.0	3.9	18.0	1003.3	680.6	60.0	9.9	1.000257
4000.0	878.9	31.0	3.9	18.0	1003.2	680.6	60.0	9.9	1.000257
4500.0	864.0	29.4	2.6	18.0	991.8	678.7	57.7	8.0	1.000252
5000.0	849.3	27.7	1.3	18.0	980.4	676.8	53.9	6.2	1.000247
5500.0	834.6	26.4	.8	18.7	967.7	675.3	47.1	4.4	1.000243
6000.0	820.1	25.1	.2	19.4	955.1	673.8	31.6	2.7	1.000239
6500.0	805.9	23.8	-.4	20.1	942.8	672.3	348.0	1.7	1.000236
7000.0	791.9	22.5	-1.0	20.9	930.6	670.8	293.8	2.6	1.000232
7500.0	778.2	21.2	-1.6	21.6	918.6	669.2	275.4	4.4	1.000228
8000.0	764.7	19.9	-2.3	22.3	906.8	667.7	268.0	5.4	1.000225
8500.0	751.4	18.6	-3.0	23.0	895.1	666.2	262.7	6.2	1.000221
9000.0	738.1	17.3	-3.9	23.2	883.3	664.7	257.1	6.3	1.000217
9500.0	725.0	16.0	-4.9	23.5	871.6	663.1	249.6	6.0	1.000214
10000.0	712.1	14.6	-5.8	23.8	860.1	661.6	244.4	5.8	1.000210
10500.0	699.4	13.3	-6.7	24.1	848.8	660.1	245.6	5.4	1.000206
11000.0	686.6	11.9	-6.5	26.9	837.4	658.4	247.4	5.1	1.000204
11500.0	674.1	10.5	-6.5	29.7	829.2	656.8	252.4	5.2	1.000202
12000.0	661.7	9.0	-6.6	32.5	815.2	655.1	257.3	5.3	1.000199
12500.0	649.6	7.6	-6.7	35.3	804.4	653.5	261.7	6.5	1.000197
13000.0	637.8	6.2	-7.0	38.1	793.7	651.8	264.8	7.7	1.000194
13500.0	626.1	4.7	-7.4	40.9	783.2	650.1	267.2	9.1	1.000192
14000.0	614.7	3.3	-7.9	43.7	772.9	648.4	268.9	10.5	1.000189
14500.0	603.4	1.9	-8.7	45.1	762.6	646.8	271.3	10.6	1.000186
15000.0	592.0	.9	-11.4	39.1	751.2	645.5	274.1	10.3	1.000180
15500.0	580.9	-.1	-14.3	33.2	740.1	644.2	277.1	9.4	1.000175
16000.0	570.0	-1.1	-17.5	27.2	729.0	642.9	280.9	8.0	1.000170
16500.0	559.2	-2.1	-20.1	23.7	718.1	641.6	286.4	6.5	1.000166
17000.0	548.5	-3.2	-21.3	23.1	707.3	640.3	295.3	5.1	1.000163
17500.0	538.0	-4.3	-22.6	22.4	696.6	639.0	310.5	3.9	1.000160
18000.0	527.7	-5.4	-23.8	21.8	686.2	637.5	318.5	3.2	1.000158

STATION ALTITUDE 3997' 30 FEET MSL
28 AUG. 78 1155 HRS MDT
ASCENSION NO. 127

UPPER AIR DATA
2400000127
S M H
TABLE XXX. (CONT)

GEODETIC COORDINATES
32.44034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
18500.0	517.5	-6.5	-25.1	21.1	075.8	636.3	327.4	2.6	1.000155
19000.0	507.6	-7.6	-26.4	20.5	665.7	635.0	333.0	1.8	1.000152
19500.0	497.9	-8.8	-27.7	19.9	655.8	633.5	343.4	.9	1.000149
20000.0	488.1	-10.2	-29.1	19.6	640.5	631.8	38.1	.8	1.000147
20500.0	478.6	-11.7	-30.4	19.2	637.3	630.1	66.7	1.5	1.000145
21000.0	469.2	-12.4	-31.6	18.3	626.7	629.2	72.3	2.0	1.000142
21500.0	459.9	-11.9	-32.3	16.3	613.1	629.8	73.8	2.3	1.000139
22000.0	450.8	-12.9	-32.9	16.6	603.2	628.6	77.8	2.2	1.000136
22500.0	441.9	-14.1	-33.5	17.4	594.1	627.1	86.3	1.8	1.000134
23000.0	433.1	-15.4	-34.1	18.1	585.1	625.6	87.2	1.3	1.000132
23500.0	424.5	-16.6	-34.8	18.9	570.3	624.1	40.3	.7	1.000130
24000.0	416.0	-17.9	-35.6	19.3	567.5	622.5	337.1	1.0	1.000128
24500.0	407.6	-19.1	-36.5	19.7	558.8	621.0	346.0	1.7	1.000126
25000.0	399.4	-20.4	-37.4	20.0	550.3	619.4	349.8	2.5	1.000124
25500.0	391.2	-21.8	-38.4	20.6	542.1	617.7			1.000122
26000.0	383.1	-23.3	-39.3	21.1	534.0	615.9			1.000120
26500.0	375.3	-24.7	-40.3	21.7	526.1	614.1			1.000118

STATION ALTITUDE 3997.30 FEET MSL
28 AUG. 78
ASCENSION NO. 127

MANDATORY LEVELS
240000Z127
S M R
TABLE XXXI.

GEODETTIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

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FROM COPY FURNISHED TO DDG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4973.	27.8	1.3	18.	54.2	0.3
800.0	6718.	23.3	-0.0	20.	318.3	1.9
750.0	8546.	18.4	-3.1	23.	262.3	6.2
700.0	10467.	13.4	-6.7	24.	245.5	5.4
650.0	12492.	7.6	-6.7	35.	261.7	6.5
600.0	14632.	1.6	-9.5	43.	272.1	10.5
550.0	16913.	-3.1	-21.1	23.	293.7	5.3
500.0	19365.	-8.5	-27.4	20.	339.5	1.1
450.0	22015.	-13.0	-33.0	17.	78.4	2.2
400.0	24919.	-20.3	-37.3	20.	349.6	2.4